

ENGINEERING OBSERVATION OF WASTEWATER CONSTRUCTION PROJECTS
KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
REGULATION (K.A.R.) #28-16-55

PURPOSE

To set forth the position of the Bureau of Water Quality with respect to the construction observation of wastewater collection and treatment facilities.

BACKGROUND

Kansas Department of Health and Environment Regulation K.A.R. 28-16-55 (Kansas Administrative Regulation) entitled, "Inspection of Sewerage Systems During Construction and Prohibited Connections", reads in part:

"II. Inspection of Sewerage System Construction

A. Treatment Facilities, Mains, and Laterals

All sewerage construction projects shall have continuous inspections by a qualified inspector during active phases of sewerage construction to insure that they comply with plans and specifications approved by the Kansas (State) Department of Health (now Kansas Department of Health and Environment) and to insure elimination of extraneous surface and groundwater. This shall include inspection of all sewers and manholes before they are covered but after the sewers are bedded."

With the tremendous amount of construction currently taking place, there has been some confusion as to the requirement for engineering observation. Certain contradictions may be interpreted from the above referenced segment of the regulation; therefore, clarification is desirable. Owners, contractors and consulting engineers have raised questions as to the nature and coverage of engineering observation required to comply with the regulations.

Experience has demonstrated that inadequate observation of construction can cause serious economic hardships and does little to alleviate pollution problems.

POLICY

The following policy will be observed by the Bureau of Water Quality with respect to the requirements for the engineering observation of the construction of all wastewater collection and treatment facilities:

1. The Bureau of Water Quality will interpret and enforce the following definitions of certain key words contained within the body of Regulation 28-16-55, Paragraph II.A.:

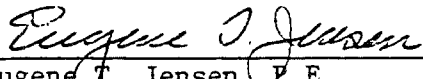
- a. "Shall": The word "shall" is a mandatory term. (Ref. 28-16-55, Paragraph I.L.).
- b. "Continuous": The word "continuous" is defined as a physical presence, on the job site(s), of a qualified observer while active phases of construction are in progress.
- c. "Inspector": An inspector shall be a consulting engineer, municipal engineer, sewer district engineer, county engineer, or their authorized representative. (Ref. 28-16-55, Paragraph I.g.).
- d. "Observer": The word "observer" will be substituted for the word "inspector". They will be considered as synonymous except that the use of the word observer will not imply or be defined as being responsible for the quality of contractor work.
- e. "Qualified": The word "qualified" is defined as an observer with an engineering degree and sewer construction training and experience, an engineering technician or aide with sewer construction training and experience, or an authorized representative who has construction background and training in sewer construction.
- f. "Active Phases": The phrase "active phases" is defined to include the following construction activities:
 - 1. pipelaying: alignment, grade, embedment and jointing procedures
 - 2. trench backfill
 - 3. testing - air, hydrostatic, lamping, deflection, and TV
 - 4. appurtenant construction* - manholes, cleanouts, junction or control structures, wet wells, dry wells, etc.
 - 5. treatment unit construction* - grit chambers, headworks, sedimentation basins, aeration basins, clarifiers, contact basins, digesters, etc.
 - 6. any other construction activities specifically outlined in contract documents by the owner.

*To include placement of forms, reinforcing steel, concrete, and installation of process equipment.

- 2. Where treatment plants and large pumping facilities are under construction, continuous engineering observation shall be provided for all active phases of the construction.

3. Observation of building sewer service connections will be assumed to be the responsibility of the owner unless specified otherwise in the project contract and specification documents.
4. Construction sites will be visited by Bureau of Water Quality staff on a random basis to determine the presence of proper engineering observation.
5. Enforcement authority of the Division of Environment may be utilized where random checks by Bureau of Water Quality staff disclose lack of proper engineering observation or lack of response on the part of the engineer or owner in providing proper engineering observation.
6. All observers must keep a daily log of activities concerning the job site(s) entrusted to their responsibility. This log must be available upon request for review by Bureau of Water Quality staff.
7. The Bureau of Water Quality recommends that preconstruction photographs be taken of all sites and maintained for reference to aid the owner, observer, and engineer in resolving any disputes concerning construction activities and site restoration.

January 18, 1978
Effective Date



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